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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR        | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------------|---------------------|------------------|
| 10/670,524   | 09/26/2003  | Koji Sakiyama               | Q77632              | 6499             |
| 23373 7590 04/27/2010<br>SUGHRUE MION, PLLC<br>2100 PENNSYLVANIA AVENUE, N.W.<br>SUITE 800<br>WASHINGTON, DC 20037 |             |                             |                     |                  |
| EXAMINER<br>FIGUEROA, FELIX O  |             |                             |                     |                  |
| ART UNIT<br>2833   |             | PAPER NUMBER                |                     |                  |
| NOTIFICATION DATE<br>04/27/2010  |             | DELIVERY MODE<br>ELECTRONIC |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PPROCESSING@SUGHRUE.COM  
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# Office Action Summary

## Application No.

10/670,524

## Applicant(s)

SAKIYAMA ET AL.

## Examiner

Felix O. Figueroa

## Art Unit

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**Period for Reply**  
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-12 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-12 and 16-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/01/2010 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 7, 8, 10, 11, 16, 17, 19 and 20 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs et al. (US 6,652,293) in view of Weidler et al. (US 5,443,403) and Boyle (US 5,620,333).

Fuchs discloses an electrical connecting apparatus comprising: a housing (10); a board side connecting portion (25) and a terminal side connecting portion (34) formed at a proximal end of said housing; at least one a discrete connection terminal (16) disposed in the housing and having a proximal (28) end which is exposed on the board side connecting portion and a distal end (27) which is exposed on the terminal side connecting portion a molded part (30) for sealing said board side connecting portion and

terminal side connecting portion; and a cable (15) which extends along an outer surface of said terminal side connecting portion and is positioned substantially parallel and adjacent to at least a portion of the housing, wherein the proximal end of said discrete connection terminal forms electrical connection to a circuit board (22) which is provided on the board side connecting portion, and the distal end of said discrete connection terminal forms electrical connection to at least one conductor (14) of the cable at the terminal side connecting portion.

Fuchs discloses substantially the claimed invention except for the flat cable. Weidler teaches the use of flat cables (54, 56) thus facilitating assembly of the connector arrangement. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a flat cable, as taught by Weidler, to facilitate assembly of the connector arrangement.

Fuchs, as modified by Weidler, discloses substantially the claimed invention except for the route of the cable. Boyle teaches a cable (12) which extends on an outer surface of the housing in which the terminal connecting portion is formed, so as to extend along the outer surface of the housing; said flat cable is extended substantially parallel and adjacent to at least a portion of the housing which is perpendicular to a surface of a receiving member in which said housing is mounted thereon, and the flat cable is bent so as to extend along the surface of the receiving member. It would have been obvious to one skilled in the art at the time the invention was made to form the route of the cable, as taught by Boyle, in order to provide strain relief and improve cable management.

Regarding claim 3, Fuchs discloses a waterproofing structure for an electrical connecting apparatus comprising: a housing (10); a board side connecting portion (25) and a terminal side connecting portion (34) formed at a proximal end of said housing; at least one a discrete connection terminal (16) disposed in the housing and having a proximal end (28) which is exposed on the board side connecting portion and a distal end (27) which is exposed on the terminal side connecting portion; a molded part (30) for sealing said board side connecting portion and terminal side connecting portion; and a cable (15) which extends along an outer surface of said terminal side connecting portion and is positioned substantially parallel and adjacent to at least a portion of the housing, wherein the proximal end of said discrete connection terminal forms electrical connection to a circuit board (22) which is provided on the board side connecting portion, and the distal end of said discrete connection terminal forms electrical connection to at least one conductor (14) of the cable at the terminal side connecting portion.

Fuchs discloses substantially the claimed invention except for the flat cable. Weidler teaches the use of flat cables (54, 56) thus facilitating assembly of the connector arrangement. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a flat cable, as taught by Weidler, to facilitate assembly of the connector arrangement.

Fuchs, as modified by Weidler, discloses substantially the claimed invention except for the route of the cable. Boyle teaches a cable (12) which extends on an outer surface of the housing in which the terminal connecting portion is formed, so as to

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extend along the outer surface of the housing; said flat cable is extended substantially parallel and adjacent to at least a portion of the housing which is perpendicular to a surface of a receiving member in which said housing is mounted thereon, and the flat cable is bent so as to extend along the surface of the receiving member. It would have been obvious to one skilled in the art at the time the invention was made to form the route of the cable, as taught by Boyle, in order to provide strain relief and improve cable management.

Regarding claims 7 and 8, Fuchs discloses the molded part sealing the connection between the at least one discrete connection terminal and the conductor.

Regarding claims 10 and 11, Fuchs discloses the molded part comprising a first molded part (upper side of 30 in Fig. 3) which seals the at least one discrete connection terminal disposed within the terminal side connecting portion and a second molded part (lower side of 30 in Fig. 3) which seals the board side connecting portion.

Regarding claims 16 and 17, Fuchs discloses the molded part also sealing the connection between the at least one discrete connection terminal of the board.

Regarding claims 19 and 20, Fuchs discloses the molded part sealing opposite end portions of the connection terminal in the first direction.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs in view of Weidler and Boyle, and further in view of Arnett (US 5,238,426).

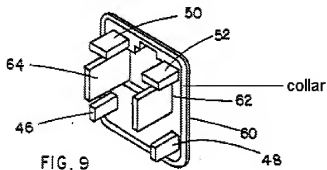
Fuchs, as modified, discloses substantially the claimed invention (see discussion on claims 1 and 3) except for the receiving member and the retainer. Arnett teaches a

mounting portion disposed at a distal end of said housing; a retainer (30) attachable to said mounting portion; and wherein said housing is mountable to a mounting hole in a receiving member (22) by attaching said retainer in said mounting hole from one side (right side) of said receiving member, and attaching said mounting portion to said retainer from the other side (left side) of said receiving member to securely mount the auxiliary machinery onto a predetermined usage/working location (see abstract lines 22-26). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to mount the auxiliary machinery of Fuchs on a receiving member, as taught by Arnett, to securely mount the apparatus onto a predetermined usage/working location.

Fuchs, as modified by Weidler, discloses substantially the claimed invention except for the route of the cable. Boyle teaches a cable (12) which extends on an outer surface of the housing in which the terminal connecting portion is formed, so as to extend along the outer surface of the housing; said flat cable is extended substantially parallel and adjacent to at least a portion of the housing which is perpendicular to a surface of a receiving member in which said housing is mounted thereon, and the flat cable is bent so as to extend along the surface of the receiving member. It would have been obvious to one skilled in the art at the time the invention was made to form the route of the cable, as taught by Boyle, in order to provide strain relief and improve cable management.

Claims 5, 6, 9, 12, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs, Weidler, Boyle and Arnett, as applied to claim 4 and further in view of Archer (US 5,125,852).

Arnett teaches the retainer being provided with abutting portions (34) for interlocking with a periphery of the mounting hole from a side opposed to a side in which side housing is attached, a projecting part (44) for interlocking with a periphery of the mounting hole on the side in which the housing is attached, and an interlocking projection (at 58) that interlocks with the housing. However, Arnett does not disclose the abutting portions being a collar. Archer discloses an abutting portion (see following figure) in the form of a collar that is larger than the mounting hole. This arrangement provides a better and more stable assembly between the retainer and the receiving member (20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the abutting members of Arnett in the form of a collar, as taught by Archer, in order to provide a better and more stable assembly with the receiving member.



Regarding claim 6, Arnett teaches the retainer is provided with abutting portions (34) for interlocking with the periphery of the mounting hole from a side opposed to a



side in which the housing is attached and an interlocking projection (at 58) that interlocks with the housing, and the auxiliary machinery be mounted and firmly fixed to the receiving member. See discussion on claim 5 regarding the use of a collar instead of abutting projections. Arnett also discloses one periphery of the mounting hole being held by the collar / abutting portions. Arnett, as modified, discloses substantially the claimed invention except for the other periphery of the mounting hole being held by housing. Archer discloses the peripheries of the mounting hole are held between the collar and a distal end of the housing after it has been mounted in the retainer. This arrangement provides a more stable engagement between the housing and the receiving member. It would have been obvious to one of ordinary skill in the art at the time the invention was made form the housing of abutting a periphery of the receiving hole, so that the peripheries of the mounting holed are held between the collar and the housing, as taught by Archer, in order to provide a more stable engagement between the housing and the receiving member.

Regarding claim 9, Fuchs discloses the molded part sealing the connection between the at least one discrete connection terminal and the conductor.

Regarding claim 12, Fuchs discloses the molded part comprising a first molded part (upper side of 30 in Fig. 3) which seals the at least one discrete connection terminal disposed within the terminal side connecting portion and a second molded part (lower side of 30 in Fig. 3) which seals the board side connecting portion.

Regarding claim 18, Fuchs discloses the molded part also sealing the connection between the at least one discrete connection terminal of the board.

Regarding claim 21, Fuchs discloses the molded part sealing opposite end portions of the connection terminal in the first direction.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection, as applied.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (571) 272-2003. The examiner can normally be reached on Mon.-Fri., 10:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Felix O. Figueroa/  
Primary Examiner  
Art Unit 2833

